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Evaluator's Guide

For Microcomputer-Based Instructional Packages

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Developed by MicroSIFT
a project of
The Computer Technology Program
Northwest Regional Educational Laboratory

ED277359

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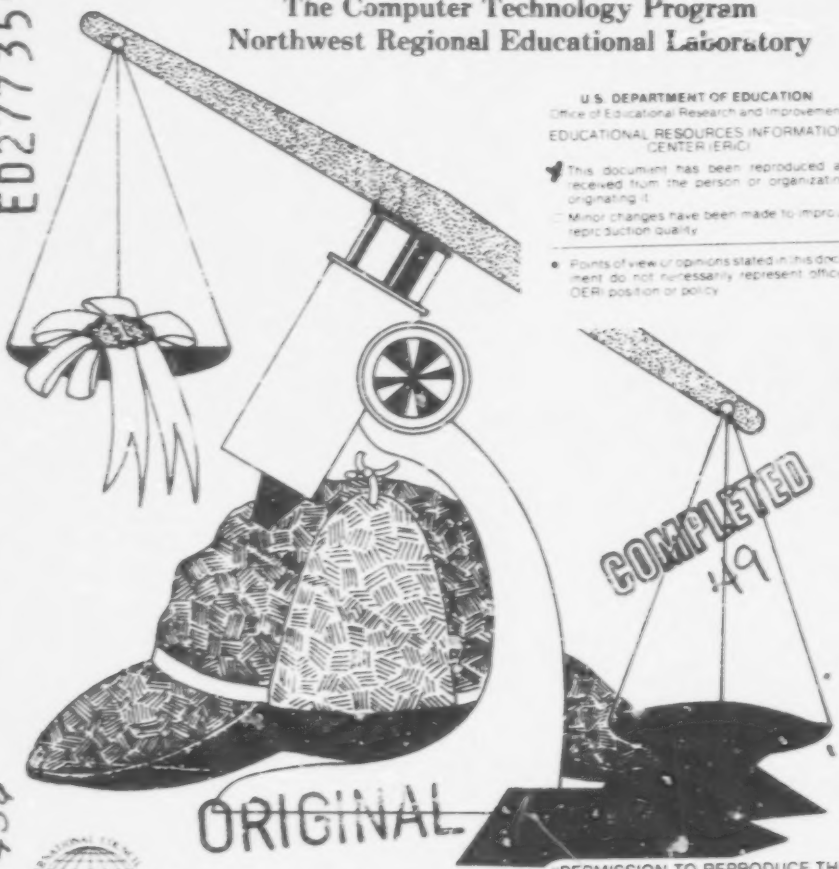

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ABSTRACT

This guide developed by MicroSIFT, a clearinghouse for microcomputer-based educational software and courseware, provides background information and forms to aid teachers and other educators in evaluating available microcomputer courseware. The evaluation process comprises six stages: (1) sifting, which screens out those programs that are not instructional in nature and determines a package's operational readiness and hardware compatibility; (2) package description, including program format, instructional purpose and technique, type of package, available documentation, and the hardware configuration necessary for its use; (3) gathering field data from evaluation experts at the K-12 level; (4) verification of the first draft of the review by the producer of the software; (5) final drafting and production of the review; and (6) dissemination of the courseware evaluation. Forms for the second (descriptive) and third (evaluative) phases are provided, together with explanations of the kinds of information needed and discussions of some of the factors to be considered in completing various sections of the forms. Definitions of five terms are provided in the introductory section, four modes of distribution for the 535 evaluations published by MicroSIFT during its 5-year history are listed, and four sample reviews conclude the guide. (DJR)

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National Institute of Education
Dr. Richard Otte, Project Monitor

Division of Evaluation, Research and Assessment, NWREL
Dr. Nick Smith, Director, Research on Evaluation Program
Dr. Gabriel Della-Piana, Consultant
Tom Eucker, Intern
Penny McDonald, Intern

Computer Technology Program, NWREL
Dr. Judith Edwards-Allen, former Director, Computer Technology Program
Donald Hoiznagel, Director, Computer Technology Program
Jerilyn Marler, Editor
Nancy Allen, Consultant
Dr. Robert Woolley, Consultant
Dr. Dan Isaacson, Consultant

Inquiries regarding the development of this booklet or the project may be directed to the staff of the Computer Technology Program, Northwest Regional Educational Laboratory, 300 S.W. Sixth Avenue, Portland, OR 97204, 503/248-6800.

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SIFTnet

The MicroSIFT Network, SIFTnet, was a group of over 25 educational organizations serving elementary and secondary schools with computer services and other types of support. SIFTnet was formed during 1980-81 to be the major vehicle for the evaluation process and the source of reviewers and test sites. An asterisk (*) indicates that the field test of the *Guide* and the evaluation process were performed by staff members at those institutions and their constituent school districts. The field test also included faculty and students of Utah State University, Logan, Utah.

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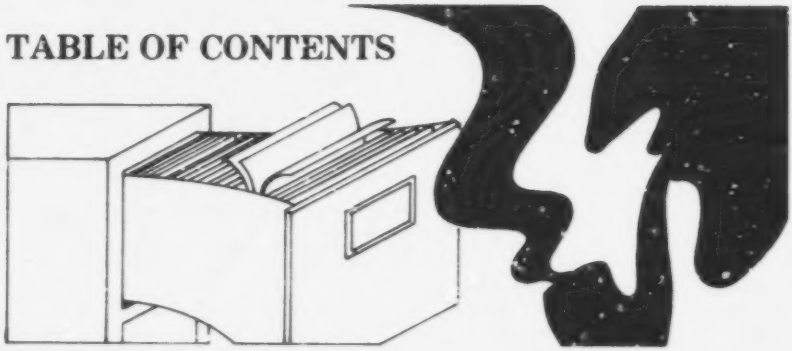

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ICCE is pleased to publish the *Evaluator's Guide*, a tool for writing carefully documented, thorough software reviews. It is particularly useful for preservice and inservice students, practitioners, software developers and users of software reviews.

Students:

This *Guide* provides a structure for learning how to evaluate and select educational courseware. Through the experience gained in preparing detailed software evaluations, students will increase their awareness of what to look for in high-quality courseware, which will reinforce their knowledge of sound teaching practices.

Practitioners:

The need for careful evaluation increases as the amount of money spent on courseware increases. The quality of courseware is improving and competition is becoming more intense. Decisions are harder to make and the need to justify those decisions is growing. The *Evaluator's Guide* provides an organized, structured format for evaluating and selecting courseware to implement curriculum.

Teachers who utilize courseware can benefit from the *Guide* by using the information to take advantage of a package's strengths while working around its weaknesses.

Software Developers:

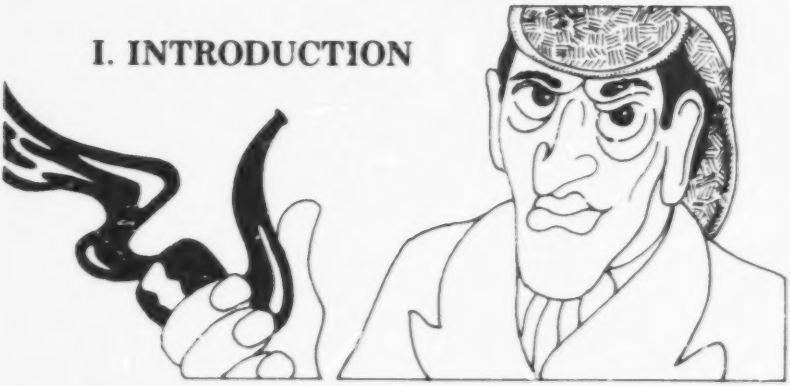
The *Evaluator's Guide* gives people who are writing or revising software a checklist to judge the instructional worth of their courseware. They can use the *Guide* as they consider the problem, design the courseware, code, write the documentation, and field test the package.

Users of Software Reviews:

Teachers can put a high degree of trust in a MicroSIFT review. Having the *Guide* available provides the justification for that trust and allows the user to clarify the criteria used in specific sections when needed.

Educators using the *Evaluator's Guide* will become more knowledgeable and discriminating when selecting courseware. This will encourage developers to continue to raise the quality of their courseware.

I. INTRODUCTION



PURPOSE

Except in instructional situations where student programming is the primary activity, microcomputers can assist the instructional process effectively only to the extent that quality software is available.

This *Evaluator's Guide* has been developed to provide background information and forms to aid teachers and other educators in evaluating educational software and courseware. The *Courseware Description* form and *Courseware Evaluation* form are described.

The forms were based on those developed and used by the CONDUIT Project for evaluating computer-based instructional packages for post-secondary institutions, with additional concepts adopted from forms developed by other organizations and individuals.

The *Evaluator's Guide* was originally designed to be used by school personnel participating in the courseware evaluation process of MicroSIFT. It has been found useful by individual teachers or others wishing to evaluate courseware before purchasing, and as a supplement to preservice and inservice courses concerned with the development or use of computer-based applications.

PROCESS

In December 1979, under a contract with the National Institute of Education, the Computer Technology Program of the Northwest Regional Educational Laboratory began designing a clearinghouse for microcomputer-based educational software and courseware. The clearinghouse, called MicroSIFT (Microcomputer Software and Information for Teachers), has as one of its goals the development and implementation of an evaluation process and related instruments for such courseware.

The original contract for the MicroSIFT project was completed November 31, 1985. Although the MicroSIFT clearinghouse continues under a new contract with the OERI which began November 1, 1985, the project will no longer publish evaluation reports on individual software products.

Below is a brief description of the process used by the lab staff to produce MicroSIFT courseware evaluations during this four-year phase of the project's history from 1981 to 1985.

1. **Sifting**—Packages submitted by the producers for review were initially screened to ensure the package is instructional in nature, commercially available and operationally ready.

2. **Description**—The MicroSIFT Courseware Description form was used to briefly describe the package in terms of format, instructional purpose and technique, type of package, available documentation, and the hardware configuration necessary for its use.

3. **Gathering Field Data**—At the heart of the MicroSIFT model of evaluation was an extensive, carefully selected network, SIFTnet, of significant centers of instructional computing activities at the K-12 level. The centers were large school districts, local or state education agencies, or regional consortia. Each participating agency had a full-time instructional computing staff, and a history of development, evaluation and implementation of instructional applications of microcomputers.

   Each site had a coordinator who maintained a list of qualified teacher evaluators. Packages for evaluation were forwarded to the site coordinator who in turn circulated the package among at least two classroom teachers in the appropriate subject, grade level, hardware availability, and background. The teachers reviewed and/or used the package with their students and completed the MicroSIFT Courseware Evaluation form to record their impressions of the package. The software and the completed reports were returned to the site coordinators upon completion.

   The site coordinators read the teacher reports and reviewed the package themselves to verify the opinions of the individual teachers. The coordinator then wrote a summary report which represented a synthesis of all three reviewers.

   The software and the summary reports were forwarded to the MicroSIFT office for publication.

4. **Producer Verification of the First Draft**—The information from the Courseware Description form and the summary Courseware Evalua-

tion form was used to compose a draft review report. Copies of the draft were forwarded to the producer of the product for verification of the descriptive information. Producers were given approximately 10 working days to respond either by phone or in writing.

Generally, about 40 percent of the producers responded. Most of the time the producers were well aware of any weaknesses which were pointed out in the review.

Occasionally, a producer would challenge the results of the review. In that case the MicroSIFT staff would examine the package to check the validity of the challenge. If the internal review indicated that the original review contained some questionable information, the package may have been sent to a second field site for additional data. The MicroSIFT staff was obligated to publish the opinion of the teacher reviewer regardless of how negative the results may be.

5. **Production**—Once the MicroSIFT staff composed an accurate representation of peer opinion of the package, the final draft was sent to production for final paste-up and proofing.

6. **Dissemination**—The MicroSIFT Courseware Evaluation project has published 535 evaluations during its five-year history. This evaluation information is disseminated nationally using the following modes:

   a. MicroSIFT evaluations are in the RICE (Resources in Computer Education) data base of information about microcomputer courseware for use in elementary and secondary education. RICE also contains information on approximately 300 producers of educational software (courseware), 2400 courseware packages, 180 other support materials such as filmstrips and textbooks on computer education, and 80 special computer education projects. RICE is stored on a large mainframe computer at Bibliographic Retrieval Services, Inc. (BRS) in New York. Questions regarding subscription to BRS for access to RICE may be directed to the customer service department of BRS at 1200 Rt. 7, Latham, NY 12100, phone 1/800/833-4707. Depending on your location, there are numerous agencies with the appropriate capability to provide RICE search services. These agencies may charge a fee to cover their costs. One excellent source may be the search service center of a college or university research library. Such centers account for the greatest majority of RICE searchers. Other possible sources may be local and state educational agencies. Searches may also be obtained at cost by calling NWREL at 503/248-6800.

b. Print copies of MicroSIFT evaluations are disseminated to over 200 educational service agencies across the country. These agencies have agreed to make this information available to educators in their region. To find the name and address of the MicroSIFT Dissemination site nearest you, call or write the Computer Technology Program of NWREL, 300 S.W. 6th Ave., Portland, OR 97204, phone 503/248-6800.

c. MicroSIFT evaluations are also available through ERIC. Contact your nearest educational research library for information about these evaluations in the ERIC system.

d. Print copies of the reviews may also be purchased directly from NWREL at the price schedule below.

Individual sets (4-16)	$ 5.50 ea.
Complete collection	$50.00
99 LIBRA science reviews	$25.00
MicroSIFT index (print)	$ 2.00
MicroSIFT index (disk)	$10.00

DEFINITION OF TERMS

In the field of microcomputers and education, terminology can easily be misinterpreted. So that everyone using this *Guide* will interpret words in the same way, a brief glossary is provided below. Each definition conforms to some standard use of the term, but is not necessarily a composite of all uses nor the more common use.

Content

Facts, terms, ideas, concepts, principles, theories and constructs which make up the subject matter of an instructional package.

Courseware

Software and printed materials which support instruction in a complete course of study or a definable subset of a course. In this sense, it is not required that all instructional activities be supported by the package or that the tutorial mode of instruction be employed. Even a 30-minute student activity aimed at one objective can be courseware in this definition.

Materials

Books, folders, envelopes, worksheets and similar terms. "User Support Materials" are items which support the activity of a person using a computer program.

Package

One or more computer programs with related materials and the storage medium. A package represents a microcomputer application.

Program

A computer program, written in BASIC, Pascal, machine code or other computer programming language.

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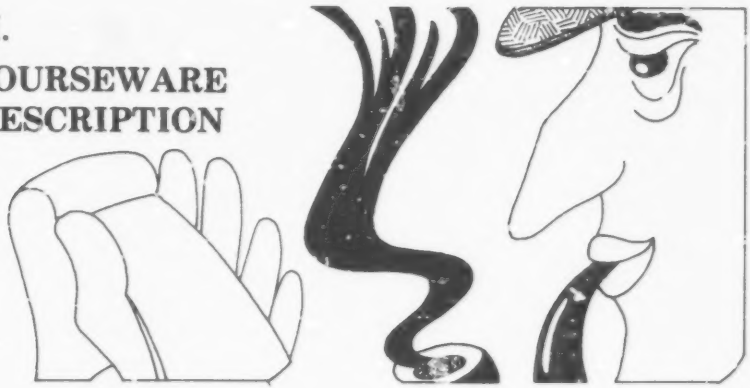
II.
COURSEWARE DESCRIPTION



Before evaluating a package, some factual information is needed. For example, does it have all the components necessary to make it a useful instructional package? Indeed, determining the existence of needed components is itself an evaluation.

The *Courseware Description* form identifies the information necessary for evaluation and use of a package. In some packages, a list of components is included. In a complete package, all the information should be readily available in the program and support materials.

Completing the form should be a straightforward task. If, however, the package fails to provide some information, you may be able to infer some of it by a trial use of the package.

Some sections of the *Courseware Description* form are discussed below.

Version Evaluated

A version number, date, or hardware identifier which distinguishes the specific package on which the evaluation is based.

Producer

The original source (developer, publisher, author, individual) who produced the package.

Subject Area(s)

A general area such as mathematics, reading or history.

Specific Topic(s)

A subset of Subject Area such as multiplication, phonics or World War I.

Grade/Ability Level

The grade level, grade range, or other ability level indicator for which the package is intended.

Required Hardware

Identify the minimum hardware required for package use.

- Computer (brand, version)
- RAM amount
- Mass Storage Devices (disk drive, cassette)
- Output Devices (color or black-and-white monitor or TV, printer)
- Other Peripherals (joystick, paddles, voice synthesizer)
- Special Electronics (circuit cards, interfaces)

Available for Hard Disk

Check "yes" if the software can be copied onto a central disk system for a cluster of computers, thus making it available for more than one computer at a time.

Licensing Available

Check "Yes" if the producer offers a licensing agreement to districts or buildings where multiple machine use is required for implementation of the package.

Required Software

Identify the language, operating system and utility software required to install and use the application software in the package. Include any drivers, subroutines or special software requirements not in the package or standard in the hardware specified.

Software Protected

Check "yes" if the software is protected from casual copying through software or hardware means.

Medium of Transfer

Check the medium the software is stored on.

Back Up Policy

Note the policy of the producer in providing back up copies of programs in a package, whether through providing it with the package, sending it free or at low cost by request or purchaser, no policy or other appropriate note.

Preview Policy

Note the policy of the producer in providing preview copies of the package prior to purchase.

Field Test Data

Indicate whether or not the producer has conducted a field test and makes the data available.

Instructional Purposes and Techniques

Check all items that describe the techniques employed in the package.

Documentation Available

For the items in the package, circle S if the documentation is in printed supplementary materials. Circle P if the item is contained in the program.

Objectives

List the purposes, goals or objectives that the package is intended to achieve.

Prerequisites

Describe the experiences, skills, concepts, understandings, maturity and ability levels which the intended user should possess for successful use of the package.

Describe Package Content and Structure

- Abstract of Content

  This information should be available in the material provided by the producer of the package. However, you may wish to add comments if the description is incomplete or inaccurate. Some suggested components of the description are discussed below.

- General Content

  Describe the general content domain of the package.

- User's Role

  Describe the dimension of user control over rate, sequence, amount, type and content of problem examples, if applicable. For example:

  "The user determines how much time will be allowed for solving each problem."

"The user defines the number of hospitals, the amount of medicine available and the quantity of pesticides used for mosquito control."

- Instructional Strategy

  Describe the instructional strategy used in the courseware. For example:

  "This is a drill and practice program designed to increase student proficiency and speed in solving quadratic equations."

  "This courseware simulates a malaria control situation by determining cost effectiveness and impact of the variables selected by the user."

- Instructional Integration

  Describe the degree to which the package is or can be an integral part of instruction. For example, it may be intended as a random or casual supplement, chosen by teacher or students, one of several options. On the other hand, it may be the only way an important topic can be addressed with a student activity.

- Program Structure

  Describe the flow or sequence of activity in the program. For example:

  "The program contains three major sections: a presentation of an example, a section of controlled user activity, and a section of uncontrolled user exploration."

III.

COURSEWARE EVALUATION

The *Courseware Evaluation* form is designed to be used after the information in the *Courseware Description* form is available. The rating of the 21 items on the form is to be the starting point of the evaluation. The sections of the form are described in the sequence they are to be completed.

Judgments should be based on thorough investigation of the program and support materials in the package. It is intended that where the term "package" is used, all components are to be taken into account in making the evaluation.

Reviewer Statement of Non-Violation of Copyright

This statement is provided for optional use by any organization that loans courseware to the reviewer during the evaluation period. MicroSIFT requires this signed statement of its reviewers and strongly encourages others using the MicroSIFT forms to do likewise.

Rating

Items 1 through 21 are to be rated on the scale provided. It is anticipated that in some cases a given item may be meaningless for the package being evaluated, and so NA (Not Applicable) should be circled.

NOTE: The descriptions of each of the items on the following pages are intended to be suggestions for consideration in arriving at a judgment of the item. They are *not* necessarily checklists, are *not* in order of importance, and are *not* exhaustive of possible considerations. The alphabetic identifiers are merely for reference purposes.

Comments

Brief comments concerning the rating of any item may be written on the reverse side of the form.

Student Use

It is not expected that student use of a package be observed in this evaluation process. You, as a professional, are making a judgment based on your teaching experience in the grade level and subjects intended for the package. However, if it is convenient to observe student use of the package, the evaluation may be even more valuable. If students take part, check the box at the top of the *Courseware Evaluation* form.

CONTENT CHARACTERISTICS

1. **THE CONTENT IS ACCURATE.**

   Possible problems in content accuracy include:

   a. Outdated information or instructional approach.

   b. Factual errors.

   c. Invalid model used in a simulation.

   d. Oversimplified model or examples.

   e. Improper use of statistics.

   f. Inaccurate graphs or displays.

2. **THE CONTENT HAS EDUCATIONAL VALUE.**

   Any decision on this item will be highly subjective. Some considerations leading to a positive judgment might include:

   a. The content and objectives are addressed in common school curricula.

   b. The knowledge and skills involved have utility in some aspect of life.

   c. An instructional situation can be envisioned in which the package would be useful.

   d. Use of the package enables you to learn something about the nature or needs of the student using it.

   e. The content of the package is central to the subject field.

3. **THE CONTENT IS FREE OF RACE, ETHNIC, SEX AND OTHER STEREOTYPES.**

   a. Certain racial, ethnic or sex groups may be over-represented at the expense of limiting others.

   b. Some racial, ethnic or sex groups may be portrayed in terms that are indicative of false generalizations about the characteristics of that group.

INSTRUCTIONAL CHARACTERISTICS

4. **THE PURPOSE OF THE PACKAGE IS WELL DEFINED.**

Purposes, goals and objectives may be in the program or in user support materials. The identification of instructional objectives is important to the transferability and use of an instructional package.

   a. Objectives should be explicit, rather than inferred.

   b. Objective statements should be clear, i.e., unambiguous and without multiple meanings, succinct, free of jargon.

   c. Objectives should be stated in terms of expected student behaviors.

The package should include both general and specific statements of purpose. That is, the overall purpose of the package ought to be concisely stated, with specific objectives stated for specific components.

5. **THE PACKAGE ACHIEVES ITS DEFINED PURPOSE.**

Courseware can be evaluated in much the same way that other instruction is evaluated, the starting place being the instructional objectives. Based on these objectives, the student using the instructional package should learn what the material sets out to teach, rather than merely being engaged in the process.

The most effective way to substantiate this aspect of instructional quality is through a sample run of the program, preferably with a learner from the target audience. However, if such a learner is not available, the evaluator should make a judgment as to how well the package would actually accomplish its objectives when used by a student of the appropriate maturity and ability, based on the evaluator's experience with students of that type.

6. **PRESENTATION OF CONTENT IS CLEAR AND LOGICAL.**

The focus of this item is on *how* the terms, facts, concepts and principles of the subject matter are presented rather than on the content itself.

a. The information is well organized.

b. The structure of the presentation is evident to a user.

c. Definitions and explanations are available when necessary.

d. There is a smooth transition between concepts and cognitive clusters.

e. The progression of presentation is logical and well identified.

f. Examples, counter-examples and illustrations are used when possible and appropriate.

g. The examples are relevant to the point of instruction.

7. **THE LEVEL OF DIFFICULTY IS APPROPRIATE FOR THE TARGET AUDIENCE.**

a. The means of response (i.e., multiple choice, manipulating graphics, single keystroke, etc.) is appropriate to the target audience.

b. The readability of support materials and program text is consistent with the expected ability level of the audience. Vocabulary, phrasing and sentence length are specific considerations here.

c. Examples and graphic illustrations are suitable for the maturity of the student.

d. The time required for typical student use does not exceed the attention span of the target audience.

e. Size of steps in logical processes are suited to the ability level of the student.

f. There are multiple levels of instruction, with diagnostic and reinforcement routines, for individual differences in the target audience.

- The program automatically branches to remediation subroutines if user responses require.
- The program automatically progresses to more difficult problems to continually provide a challenge to the user who has mastered the easier problems.
- The program automatically provides easier problems to the user who is having trouble.

8. **GRAPHICS/COLOR/SOUND ARE USED FOR APPROPRIATE INSTRUCTIONAL REASONS.**
   a. Graphics, color and sound enhance rather than detract from the instructional process.
   b. Use of sound does not disturb others in a classroom environment.
   c. Graphics, color and sound focus attention on important content areas.
   d. Good message design principles are used in order to place emphasis on important concepts.
   e. Visual and auditory effects stimulate student interest.

9. **USE OF THE PACKAGE IS MOTIVATIONAL.**
   a. Students are effectively addressed in a personal style.
   b. Narratives in the program use humor and a conversational manner.
   c. The overall tenor of interaction is warm, friendly, helpful.
   d. The package provides for a variety of student response and response modes.
   e. A variety of responses to student inputs are used.
   f. Reinforcement is positive and dignified.
   g. A student is left with a desire to use the package again, or to pursue the topic in other ways.
   h. A student is left with a positive attitude about the experience.
   i. Using the package is a pleasant experience.

10. **THE PACKAGE EFFECTIVELY STIMULATES STUDENT CREATIVITY.**
   a. The learner is involved in a active, rather than passive, manner in the instruction.
      - The student has control over as many input variables as the program permits.
      - The computer is used in a "hands-on" way, rather than merely in a presentation mode.
      - The program design allows the student as many decisions as possible.

b. The package provides opportunities to answer open-ended questions that have no "right" or "wrong" answers, and gives the student evaluative criteria to judge his/her own responses.

c. The program is designed to anticipate a wide range of possible responses.

d. The student is provided with new ways of looking at the world.

e. The package demonstrates a creative means of using the knowledge being acquired by the user.

f. The package suggests areas of further exploration or other activity.

g. The student is challenged to change an underlying model or design an alternative model.

11. **FEEDBACK ON STUDENT RESPONSES IS EFFECTIVELY EMPLOYED.**

a. The feedback is relevant to the students' responses and therefore "credible."

b. The feedback is non-threatening, yet corrective when necessary.

c. The feedback is timely, i.e., given with appropriate frequency and given immediately after a response.

d. The feedback remediates (gives cues, hints and explanations).

e. There is quantitative feedback when valuable.

- The program indicates the number and percentage of problems correct out of the number of problems attempted.

f. The feedback tells "why" the response was incorrect, e.g., "You should have spelled the name correctly," or "Use no punctuation."

g. The judgment of the student responses properly assesses the concept being taught, not merely its form.

- Is word order more important than the content of the response?

h. The program adapts to the learner by adjusting the difficulty level of the content.

12. **THE LEARNER CONTROLS RATE AND SEQUENCE OF PRESENTATION AND REVIEW.**

a. Student has control over the time allowed for solving problems, allowing for accelerating or slowing the pace as the user deems necessary.

On the following pages you will find the *Courseware Description Form* and the *Courseware Evaluation Form*.

Permission is given to reproduce both forms.

microSIFT COURSEWARE DESCRIPTION

NORTHWEST REGIONAL EDUCATIONAL LABORATORY

Title _____ Version Evaluated _____

Producer _____ Cost _____

Subject/Topics _____

Grade Level(s) (circle) pre-1 1 2 3 4 5 6 7 8 9 10 11 12 post-secondary

Required Hardware _____

Available for Hard Disk? ☐ Yes ☐ No ☐ Unknown Licensing Available? ☐ Yes ☐ No ☐ Unknown

Required Software _____

Software protected? ☐ Yes ☐ No Medium of Transfer ☐ Tape Cassette ☐ ROM Cartridge ☐ 5¼" Flexible Disk ☐ 8" Flexible Disk

Back Up Policy _____

Preview Policy _____

Producer's field test data is available ☐ On Request ☐ With Package ☐ Not Available

INSTRUCTIONAL PURPOSES & TECHNIQUES

(Please check all applicable)

- ☐ Remediation
- ☐ Standard Instruction
- ☐ Enrichment
- ☐ Assessment
- ☐ Instructional Management
- ☐ Authoring
- ☐ Drill and Practice
- ☐ Tutorial
- ☐ Information Retrieval
- ☐ Game
- ☐ Simulation
- ☐ Problem Solving
- ☐ Other _____

DOCUMENTATION AVAILABLE:

Circle P-(Program) or S-(Supplementary Material)

P	S	Suggested grade/ability level(s)	P	S	Teacher's information
P	S	Instructional objectives	P	S	Resource/reference information
P	S	Prerequisite skills or activities	P	S	Student's instructions
P	S	Sample program output	P	S	Student worksheets
P	S	Program operating instructions	P	S	Textbook correlation
P	S	Pre-test	P	S	Follow-up activities
P	S	Post-test	P	S	Other _____

OBJECTIVES: ☐ Stated ☐ Inferred

PREREQUISITES: ☐ Stated ☐ Inferred

Describe package **CONTENT AND STRUCTURE**, including record-keeping and reporting functions:

(Use back if additional space needed)

microSIFT COURSEWARE EVALUATION

NORTHWEST REGIONAL EDUCATIONAL LABORATORY

Package Title _____ Producer _____
Evaluator's Level and Subject Taught _____
Evaluator Name _____ Organization _____
Date _____ ☐ Check this box if this evaluation is based partly on your observation of student use of this package.

Reviewer Statement of Non-Violation of Copyright

The producer's copyright was respected during this evaluation, and I did not copy or attempt to copy any portion of this package.

Signature _____ Date _____

SA-Strongly Agree A-Agree D-Disagree SD-Strongly Disagree NA-Not Applicable

Please include comments on individual items on the reverse page.

CONTENT CHARACTERISTICS

1. SA A D SD NA The content is accurate. (p. 16)
2. SA A D SD NA The content has educational value. (p. 16)
3. SA A D SD NA The content is free of race, ethnic, sex and other stereotypes. (p. 16)

INSTRUCTIONAL CHARACTERISTICS

4. SA A D SD NA The purpose of the package is well defined. (p. 17)
5. SA A D SD NA The package achieves its defined purpose. (p. 17)
6. SA A D SD NA Presentation of content is clear and logical. (p. 17)
7. SA A D SD NA The level of difficulty is appropriate for the target audience. (p. 18)
8. SA A D SD NA Graphics/color/sound are used for appropriate instructional reasons. (p. 18)
9. SA A D SD NA Use of the package is motivational. (p. 19)
10. SA A D SD NA The package effectively stimulates student creativity. (p. 19)
11. SA A D SD NA Feedback on student responses is effectively employed. (p. 20)
12. SA A D SD NA The learner controls the rate and sequence of presentation and review. (p. 20)
13. SA A D SD NA Instruction is integrated with previous student experience. (p. 29)
14. SA A D SD NA Learning can be generalized to an appropriate range of situations. (p. 29)

TECHNICAL CHARACTERISTICS

15. SA A D SD NA The user support materials are comprehensive. (p. 30)
16. SA A D SD NA The user support materials are effective. (p. 31)
17. SA A D SD NA Information displays are effective. (p. 31)
18. SA A D SD NA Intended users can easily and independently operate the program. (p. 32)
19. SA A D SD NA Teachers can easily employ the package. (p. 34)
20. SA A D SD NA The program appropriately uses relevant computer capabilities. (p. 34)
21. SA A D SD NA The program is reliable in normal use. (p. 35)

QUALITY

Write a number from 1 (low) to 5 (high) which represents your judgment of the quality of the package in each division:

_____ Content Characteristics
_____ Instructional Characteristics
_____ Technical Characteristics

RECOMMENDATIONS

☐ I highly recommend this package.

☐ I would use or recommend use of this package with little or no change. (Note suggestions for effective use below.)

☐ I would use or recommend use of this package only if certain changes were made. (Note changes under Weaknesses or Other Comments.)

☐ I would not use or recommend this package. (Note reasons under Weaknesses.)

Describe the potential use of the package in classroom settings:

(Additional items on back)

Estimate the amount of time a student would need to work with the package in order to achieve the objectives:
(Can be total time, time per day, time range or other indicator.)

Strengths:

Weaknesses:

Other Comments:

b. Student has control over the rate of presentation of display material so that s/he can read and absorb the information at his/her own rate.

c. The program does not lock the student into a linear instructional sequence.

d. The program allows the student to begin at a point appropriate to his/her past achievements.

e. The program has a provision for review of instructions initiated by the user.

f. The program defines "functions" for learner options such as HELP, HINT, DICTIONARY.

13. **INSTRUCTION IS INTEGRATED WITH PREVIOUS STUDENT EXPERIENCES.**

a. Instruction is designed to take into account the background experiences typical of the target audience.

b. Inductive reasoning is employed. Known situations are used to explain new situations.

c. Commonly experienced examples are used.

- Some students may better understand the liquid metric measurements within the context of filling the car with gasoline rather than filling a graduated cylinder with water.

d. Instruction moves from the concrete to the abstract, simple to complex, familiar to unfamiliar.

14. **LEARNING CAN BE GENERALIZED TO AN APPROPRIATE RANGE OF SITUATIONS.**

a. The learning is applicable to a student's future experiences.

- The instruction prepares the user for the next unit in the package.

b. The student is presented with opportunitites that require generalization of the rules acquired at the computer and opportunities to apply those rules to real life situations away from the computer.

c. The processes and information learned are useful in domains and situations other than the subject area of the package.

d. The content is organized in such a way as to facilitate recall and application away from the computer and outside of the immediate content domain.

- Is the metric system taught within the context of the decimal system or as isolated measurements (meter, gram, liter, etc.)?

TECHNICAL CHARACTERISTICS

15. **THE USER SUPPORT MATERIALS ARE COMPREHENSIVE.**

In this item, you are assessing the completeness of the package in terms of its support for the teachers and students in the intended pattern of use, and reasonable optional uses. Many different types of information may be included in the printed material accompanying the program. The components of good user support materials identified here can be packaged in many ways. Separate identification does not imply a need for separate booklets, although that may be desirable. (See also item 16.)

a. Student Materials: Sufficient materials for a variety of student activities should be provided:

- Pre-instruction activities relating to the package
- A guide to use of the package
- Follow-up activities to reinforce the instruction
- Worksheets

b. Teacher's Information

- A description of the instructional activities to take place
- Suggestions for classroom logistics in a variety of hardware situations (single or multiple machines, hardware not in classroom, etc.)
- A rationale for computer use
- Prerequisite skills necessary for best utilization
- Teacher directed pre- and post-instructional activities

c. Resource Information

- Bibliography of resources and references related to the content domain
- Sample run of the program
- Possibilities for program modifications
- A description of the model used in simulations

d. Technical Documentation

- Detailed explanation of how the program and package operate
- Program code listings

- Explanation of user-definable options to adapt the program for different applications
- Explanation of the software/hardware interface or any other extraordinary features of the program
- Flowchart or other diagrams of general logic of individual programs and package
- Interpretation of error messages

e. Containers

- Folders, binders, pockets for storing printed materials, disks, cassettes or other components
- Boxes or other container(s) for organizing and storing the entire package

16. **THE USER SUPPORT MATERIALS ARE EFFECTIVE.**

a. The appearance of the materials is attractive.

b. The quality of the paper or binding is appropriate to its intended use and expected life.

c. The printed text is clear, readable and attractive.

d. Pictures, diagrams and graphs are appropriate and readable.

e. The text, captions, labels, etc. are thoroughly edited and free of errors in grammar, spelling and punctuation.

f. The packaging of the materials is suitable for the intended use.

- Student worksheet masters intended for reproduction are "loose leaf" or easily reproduced.
- Teacher support materials can be separated from student materials.

g. The program storage media are easily accessible, yet protected from random injury expected in mailing, dropping, etc.

h. The entire package is storable as a unit in standard storage facilities (office shelves, cabinets, etc.).

i. Materials are easily used in table space typically available near a microcomputer station.

17. **INFORMATION DISPLAYS ARE EFFECTIVE.**

Good message design principles are incorporated into the visual arrangement of display material.

a. Graphic displays are not too complex or full of too much information.
   - There is adequate spacing on the screen or printed materials for clarity.
   - Static and dynamic graphics are used when applicable.
   - Screen and printed displays make effective use of open space.

b. Text narrative on the monitor or printer is clear and easy to read.

c. Narrative is not ambiguous.

d. Text information is not too lengthy or "wordy."

e. The user is given adequate time to read and absorb the information given in the displays.

f. Text is free from spelling and punctuation errors.

g. Character sets employed are appropriate for the intended audience.

h. Graphics are not too repetitive or too slow in presentation.

i. Input options are independent of color, or at least avoid common color blindness problems.

j. There is not too much text for the display.
   - The text position is consistent and/or predictable (i.e., the student does not have to hunt for the information).

k. Graphics are appropriately mixed with text material to give variety to the presentation.

l. Transitions from display to display on a video screen are smooth and unobtrusive.

m. Scrolling is used appropriately. Only pertinent information is retained on the screen.

n. Adequate teacher/student options for use or non-use of sound are provided.

o. Graphics are not disturbing to the user.

18. **INTENDED USERS CAN EASILY AND INDEPENDENTLY OPERATE THE PROGRAM.**

a. The program has enough internal documentation to permit ease of use even without external paper documentation.

b. Formats and protocols for user-computer communication are consistently and logically applied.

c. Directions are accompanied by useful examples where appropriate.

d. Help pages and functions are provided and accessible at likely points of need.

e. The program does not allow the user to get lost in the program with no apparent way out. The student always has some options for getting the program running again or returning to a beginning point.

f. The program doesn't stop or appear to be doing nothing without cues.

g. Traps are used copiously to catch potential errors of any kind, and to avoid moving control from the application to the operating system.

h. Instructions and error messages are clear and unambiguous. They give the user clear directions as to what s/he must do to effectively use the program.

i. The program responds to inputs as the directions indicate.

j. The user can easily exit the program, return to menus, or move to another section with program-described conventions.

k. The program accurately evaluates student input, i.e., it does not misinterpret student responses and thereby identify a response as incorrect when it is in fact correct.

l. Computer operation does not interfere with concentration on the activity.

m. The program can be used with a minimum of computer competencies.

n. The user isn't uneasy using the software due to its complexity of operation.

o. The user is informed of which function keys s/he will use in the course of the program and their purpose.

p. There is the necessary cueing for function key usage.

q. Those function keys referred to in the program are available on the hardware.

r. The use of function keys does not necessitate re-input of user responses previously input into the computer.

19. **TEACHERS CAN EASILY EMPLOY THE PACKAGE.**

Not only should the program be easily used by students, but it should be equally employable by teachers. Many of the same considerations as in item 18 can be applied here, and in addition:

a. The program can be used by a person having a minimum of computer competencies.

b. The program requires a minimal amount of equipment manipulation by the teacher.

c. Software modifications or unusual manipulations of disks are not required to use the program effectively.

d. The package is easily adaptable to a variety of classroom learning environments, including placement of hardware inside or outside the classroom.

e. Error handling and identification are sufficiently detailed so the teacher can easily help a student.

f. Students require a minimum amount of teacher supervision while using the program.

20. **THE PROGRAM APPROPRIATELY USES RELEVANT COMPUTER CAPABILITIES.**

The success of the computer as a means for instruction is due to those capabilities inherent in the technology. Computer software should take full advantage of the unique aspects of the computer rather than merely doing the same activities in a new way.

a. The application is well suited to computer use and not one that can be handled more appropriately by other means.

b. Course management or computer collection and organization of data on instruction is available.

- Information about the student's performance is stored for retrieval at a later time.

c. The computer is used in a dynamic, interactive way.

- The computer makes decisions based on student performance according to the teaching strategies inherent to the program.

d. The computer makes effective use of other peripheral devices (e.g., printers, light pens, paddle controllers, joysticks, etc.) for alternate input modes.

e. The computer is used to simulate activities that are too difficult, dangerous or expensive to demonstrate in reality.

f. The computer is used so that students are actively involved in a "hands-on" manner rather than only passively observing.

g. The computer responds to natural student input such as "YES" or "NO" or "Y" or "N", rather than "1 = YES, 2 = NO."

21. **THE PROGRAM IS RELIABLE IN NORMAL USE.**

a. The program will consistently run under all normal conditions. No special precautions such as clearing memory are required for effective program execution.

b. The program will consistently load into the computer without undue complexity such as re-loading.

c. The program is free of programming and operational errors.

QUALITY

Using a 5-point rating scale (1—low to 5—high), write a number for each category which represents your best overall judgment on the quality of the package in each of the three general categories. Although you may consider your responses on items 1-21, no mathematical calculation will connect the two sections. The Quality judgment is a separate decision.

RECOMMENDATIONS

Having concluded a review of the instructional objectives, prerequisite activities, content and structure, and having rated the various considerations of content, instruction and technical quality, you are then ready to make a recommendation for use of the package.

Under Recommendations, you have four options from which to choose to represent your estimation of the program's usability. (Elaboration can be made in other sections, which ask for ways the program can be used effectively, and for identification of the major strengths and weaknesses in the program.)

Highly Recommend

I highly recommend this package.

Recommend Package

I would use or recommend use of this package with little or no change. (Note suggestions for effective use below.)

Recommend with Changes

I would use or recommend use of this package only if certain changes were made. (Note changes under Weaknesses or Other Comments.)

Do Not Recommend

I would not use or recommend this package. (Note reasons under Weaknesses.)

In completing the sections on the back of the form, the evaluator should refer to Content Characteristics, Instructional Characteristics and Technical Characteristics (Sections 1-21 of the *Courseware Evaluation* form). These ratings, along with any notes or comments made, should serve as the basis for specifying the program's strengths and weaknesses.

DESCRIBE THE POTENTIAL USE OF THE PACKAGE IN CLASSROOM SETTINGS.

The checklist (1-21) of the *Courseware Evaluation* form should be completed before this item. A recommendation for use with or without changes should be accompanied in this space by a description of the possible use(s) you envision for the package in specific classroom settings. The description might include:

a. Different audience characteristics to whom the program is applicable.

"The package should be used with individuals and small groups only."

"Program could also be used with audiences older than the recommended target audience."

b. Different teaching modes the program may enhance.

"The package can be used to introduce the topic."

"The courseware can be used to reinforce related instruction and to test the adequacy of that instruction."

c. Any "unique" applications the courseware may have.

"The package can be used in a "contest" form to see which team can devise the best strategy for solving the problem."

ESTIMATION OF STUDENT TIME

Estimate the amount of time a student would need to work with the package in order to achieve the objectives. Can be stated as total time, time per day, time range or other indicator.

STRENGTHS

Content Strengths

"The laboratory simulation was accurate and could be used in place of the real laboratory situation."

"The instructional objectives are stated and are very specific as to terminal performance behavior."

Instructional Strengths

"The user has control over many of the variables affecting his/her instruction."

"The simulation adequately considers all of the variables related to the problem."

Technical Strengths

"The directions were very clearly stated, giving examples when necessary."

"The documentation is thorough and comprehensive."

WEAKNESSES

Content Weaknesses

"Some equations were graphed incorrectly on the monitor."

"The recommended audience age is too young for program content."

Instructional Weaknesses

"The program does not allow students to generate their own answers—they may only choose among four options."

"The student only watches the program. There is no active participation in the courseware."

Technical Weaknesses

"The computer was used as nothing more than an electronic textbook. No unique interactive characteristics were used."

"The documentation included only a listing of the program. No objectives or prerequisites were mentioned."

OTHER COMMENTS

Place here general comments which may be neither strengths nor weaknesses, but nevertheless provide useful information to a potential user. Cost issues could be included here. Cost effectiveness is difficult to measure, and the value of a particular package varies with the priorities of the district or school. However, it may be appropriate in some cases to comment on whether the cost as identified on the *Courseware Description* form is extraordinarily high or low for its capabilities.

Editor's Note: Before releasing these reviews, MicroSIFT has submitted reviewers' descriptions, comments and ratings to vendors of the programs. Vendors' responses were considered before the final reviews were written.

Story Tree

Producer: Scholastic, Inc.
2931 East McCarty Street
P.O. Box 7502
Jefferson City, MO 65102

Evaluation Completed: October 1985 by the staff and constituents of the Northwest Regional Educational Laboratory, Portland, Oregon.
Version: Apple
Cost: $59.95. Lab packs containing five sets of disks are available for $99.95.

Ability Level: Grades 4 through 12
Subject: Language Arts
Topic: Writing
Medium of Transfer: 5¼ inch disk
Required Hardware: 64K Apple II, one disk drive, monitor, printer (optional). Also available for 128K IBM-PC and PCjr, and Commodore 64.
Backup Policy: Backup disks are provided.
Preview Policy: Full refund if returned within 30 days.
Instructional Purpose: Enrichment
Instructional Techniques: Word processor

Documentation Available

In program—student's instructions. **In supplementary materials**—suggested grade/ability level, sample program output, program operating instructions, teacher's information, student's instructions, student worksheets, follow-up activities.

Instructional Objectives (Inferred)

To provide a tool which will enable the student to compose interactive stories.

Instructional Prerequisites (Inferred)

The student should be familiar with the computer keyboard. The students must become familiar with the operation of the word processor capabilities of the program before they will be able to begin writing a story.

Content and Structure

This package contains a program disk, a sample story disk, backup disks of each, and a 75-page manual. The manual contains a quick start guide, reference guide, tutorial, teacher's guide, curriculum ideas, and instructions for creating Story Tree shells. Story Tree is a program for writing and reading "interactive" stories which allows the reader to make choices about the way the story will unfold. Stories branch from one beginning to many different endings and may also include chance events along the way.

Potential Uses

This package could be used as an enrichment activity for individual students or small groups of students at the upper elementary or junior high school level. It could also be used by an entire class where the class decides the theme of the story and designs a flowchart of the branching pattern in a class discussion. Each student, or pair of students, is assigned to compose one of the various sections of the story. The package also has relevance in other subject areas such as social studies, science, health, etc.

Estimated Student Time Required

Varies depending upon the length and complexity of the story the user chooses to read or write.

Major Strengths

The use of the package encourages the student to plan ahead to create an organized story. It involves a lot of problem solving on the student's part. Use of the package motivates students to write. The package is flexible enough to allow creativity. The manual is clearly written, very comprehensive, and contains many suggestions for classroom use.

Major Weaknesses

The teacher would need to invest a considerable amount of time learning the package and the process of writing interactive stories before attempting to use the package with students. This is especially true if the teacher is not familiar with word processing.

Other Comments

The package is a tool for writing interactive stories. It does not teach the student how to write interactive stories. It is the responsibility of the teacher to provide instruction on this writing process and technique.

EVALUATION SUMMARY

SA	A	D	SD	NA		SA	A	D	SD	NA	
•					Content is accurate	•					Learner controls rate and sequence
•					Content has educational value			•			Instruction integrates with prior learning
		•			Content is free of stereotypes		•				Learning can be generalized
•					Purpose of package is well defined	•					User support materials are comprehensive
•					Package achieves defined purpose	•					User support materials are effective
		•			Content presentation is clear and logical	•					Information displays are effective
•					Difficulty level is appropriate to audience	•					Users can operate easily and independently
•					Graphics/sound/color are used appropriately			•			Teachers can employ package easily
•					Use of package is motivational	•					Computer capabilities are used appropriately
•					Student creativity is effectively stimulated	•					Program is reliable in normal use
		•			Feedback is effectively employed						

SA - Strongly Agree, A - Agree, D - Disagree, SD - Strongly Disagree, NA - Not Applicable

The evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 5 (High) to 1 (Low).
Content - 4, Instructional Characteristics - 4, Technical Characteristics - 4.

Northwest Regional Educational Laboratory
300 S.W. Sixth Avenue • Portland, Oregon 97204
(503) 248-6800

This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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WordMath

Producer: Milliken Publishing Co.
1110 Research Blvd.
P.O. Box 21579
St. Louis, MO 63132-0579

Evaluation Completed: October 1985 by the staff and constituents of the Northwest Regional Educational Laboratory, Portland, Oregon.
Version: Apple
Cost: Without backups—$195. With backups—$290. Additional disks each $45. Set of 12 Student Workbooks $25.

Ability Level: Grades 4 through 8
Subject: Mathematics
Topic: Problem solving, Arithmetic
Medium of Transfer: 5¼ inch disk
Required Hardware: 48K Apple II, one disk drive and monitor.
Required Software: Applesoft, DOS 3.3
Backup Policy: Available separately
Preview Policy: Demonstrations available through regional representatives.
Instructional Purpose: Remediation, standard instruction, enrichment
Instructional Techniques: Drill and practice, problem solving

Documentation Available

In program—instructional objectives, post-test, student's instructions. **In supplementary materials**—suggested grade/ability level, instructional objectives, prerequisite skills or activities, sample program output, program operating instructions, teacher's information, student's instructions, student worksheets, textbook correlation.

Instructional Objectives (Stated)

To teach students how to cope with different kinds of math word problems.

Instructional Prerequisites (Stated)

Students need the basic computational skills of the four operations with whole numbers.

Content and Structure

This package contains four disks, a Teacher's Guide, Student Workbook I and Student Workbook II. *WordMath* consists of four modules, each containing two levels of difficulty: simple and complex. Problems at the simple level tend to be shorter and require less sophisticated calculations than those at the complex level. Complex problems also review previous modules. An optional five-problem post-test can be assigned by the teacher. The four modules are: Basic Problems, Forward Order/Reverse Order, Extra Numbers and Hidden Numbers. A management program maintains up to 100 individual student assignments and records.

Potential Uses

This package could be used by individual students needing to learn how to work word problems. The management system makes the package ideal for individualized work in a resource center.

Estimated Student Time Required

Approximately 15 sessions of 15 to 20 minutes each.

Major Strengths

The module objectives are clearly stated for both the teacher and the student. The package leads the student through the problem step-by-step. Displaying the strategy for solving the problem and showing how the strategy works is very helpful and makes it very clear to the students. The feedback to students when they make errors is positive and corrective. The display screens are clear and add to student interest. The management system is helpful to the teacher for monitoring the students' progress and for assigning work in specific skill areas. The support materials are very comprehensive and easy to follow.

Major Weaknesses

It would be helpful if the program would prompt the student to press RETURN when necessary. The package makes very little use of graphics or sound. The user can only exit at certain times in the program. The choices offered to the student are very limited.

Other Comments

This package would work well if the teacher had a small group of five to 10 students. With an average size class of 25 to 35, the program would require too much time to maintain for the instructional value it produces.

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
•					Content has educational value.
	•				Content is free of stereotypes.
•					Purpose of package is well defined.
	•				Package achieves defined purpose.
•					Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
		•			Graphic sound/color are used appropriately.
	•				Use of package is motivational.
		•			Student creativity is effectively stimulated.
•					Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
•					User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
				•	Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

The evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 5 (High) to 1 (Low).
Content - 4, Instructional Characteristics - 4, Technical Characteristics - 4.

Northwest Regional Educational Laboratory
300 S.W. Sixth Avenue • Portland, Oregon 97204
(503) 248-6800

This evaluation is based on the evaluation of three or more reviewers who are representative of potential users of the courseware package.

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The Voyage of the Mimi: Whales and Their Environment with the Bank Street Laboratory

Producer: Holt, Rinehart and Winston
Attn.: Order Fulfillment Dept.
CBS, Inc.
383 Madison Avenue
New York, NY 10017

Evaluation Completed: October 1985 by the staff and constituents of the Northwest Regional Educational Laboratory, Portland, Oregon.
Version: Apple
Cost: $374.25. $312 without 25 student workbooks. (Note: Price subject to change.)

Ability Level: Grades 4 through 8
Subject: Science
Topic: Biology, Ecology
Medium of Transfer: 5¼ inch disk
Required Hardware: 64K Apple II, one disk drive, color monitor.
Required Software: Applesoft, DOS 3.3
Backup Policy: Make your own backup disks.
Instructional Purpose: Standard instruction, enrichment
Instructional Techniques: Laboratory interfacing, problem solving

Documentation Available

In program—student's instructions. **In supplementary materials**—suggested grade/ability level, sample program output, program operating instructions, teacher's information, student's instructions, student worksheets, textbook correlation, follow-up activities.

Instructional Objectives (Inferred)

To provide a tool for measuring light, temperature, and sound which will enable the student to perform scientific explorations.

Instructional Prerequisites

None stated.

Content and Structure

This package contains a boot disk, a lab disk, 25 student workbooks, a 70-page Teacher's Edition, a User's Manual, an electronic circuit on a board that plugs into an Apple computer, two temperature sensors, a light sensor, a light source, a microphone, a speaker, three connectors, and two slides for light experiments. It is the fourth in *The Voyage of the Mimi* series of learning modules. This package is designed to be used in conjunction with the 13 half-hour episode television series and video cassette series titled *The Voyage of the Mimi*. The other packages in the series are: Introduction to Computing, Maps and Navigation, and Ecosystems.

The Student Guide introduces the students to whales and their environment which sets the stage for a study of light, temperature, and sound. The Guide provides instructions for conducting 15 physical science experiments.

The software enables the computer to be used to measure temperature, light, and sound. The temperature modules provide the following functions: calibration of the temperature probes, absolute measurement of temperature in either Fahrenheit or Celsius scales, comparing the temperature between two probes, and plotting a graph of temperature against time (time up to 1000 hours).

The light module provides the following functions: calibration of the light sensors, absolute measurement of light intensity, comparing up to five successive measurements of light intensity, and plotting a graph of light intensity against time. A computer-controlled light source is also available.

The sound module provides the following functions: calibration of the microphone, absolute measurement of loudness and frequency, absolute measurement of sound level, comparison of up to five successive measurements of sound level, plotting a graph of sound level against time, absolute measurement of sound frequency, comparison of up to five successive measurements of sound frequency, plotting a graph of the sound wave, plotting a graph of pitch against time, and then playing back the sound pattern.

Potential Uses

The program could be used by small groups in a science lab setting, or in a large group demonstration. It would also be good for independent study such as a research project or a science project. Music teachers can use the sound module to enhance music theory.

Estimated Student Time Required

Each lab would require 35 to 45 minutes.

Major Strengths

The package encourages a strong involvement of the student in experimental science. The measurements can be displayed in a variety of ways for student analysis. The graphics are simple, clear and pertain directly to the objective of the activity. Use of the package motivates the student to do the experiments. The materials are simple but very flexible. Further experiments can easily be generated. The sensory devices are durable and well constructed for student use; it is extremely easy to hook up sensors, change sensors, etc. The package makes use of icons to show which sensory device is connected.

Major Weaknesses

The on-screen instructions sometimes lack specific directions explaining when to connect which sensor devices. The relationship between *Whales and Their Environment* and the activities in the *Bank Street Laboratory* is very vague.

EVALUATION SUMMARY

SA	A	D	SD	NA	
●					Content is accurate.
●					Content has educational value.
		●			Content is free of stereotypes.
●					Purpose of package is well defined.
●					Package achieves defined purpose.
	●				Content presentation is clear and logical.
	●				Difficulty level is appropriate to audience.
●					Graphics/sound/color are used appropriately.
●					Use of package is motivational.
●					Student creativity is effectively stimulated.
		●			Feedback is effectively employed.

SA	A	D	SD	NA	
	●				Learner controls rate and sequence.
	●				Instruction integrates with prior learning.
●					Learning can be generalized.
	●				User support materials are comprehensive.
	●				User support materials are effective.
●					Information displays are effective.
	●				Users can operate easily and independently.
	●				Teachers can employ package easily.
●					Computer capabilities are used appropriately.
	●				Program is reliable in normal use.

SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree, NA = Not Applicable

The evaluators indicated that they would highly recommend this package.

Summary: Scale from 5 (High) to 1 (Low).
Content = 5, Instructional Characteristics = 5, Technical Characteristics = 5.

Northwest Regional Educational Laboratory
300 S.W. Sixth Avenue • Portland, Oregon 97204
(503) 248-6800

This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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Hometown

Producer: Active Learning Systems
P.O. Box 1984
Midland, MI 48640
517/835-7051

Evaluation Completed: October 1985 by the staff and constituents of the Northwest Regional Educational Laboratory, Portland, Oregon.
Version: Apple
Cost: $148. Volume discounts available.

Ability Level: Grade 5 through postsecondary
Subject: Social Studies
Topic: Civics, Local Affairs
Medium of Transfer: 5¼ inch disk
Required Hardware: 48K Apple II, one disk drive and monitor, Centronics printer (optional). Also available for Commodore 64, IBM-PC, and 64K Microbee.
Required Software: Applesoft, DOS 3.3
Backup Policy: The program disk may not be copied. Data disks may be copied.
Instructional Purpose: Standard instruction, enrichment
Instructional Technique: Problem solving, information gathering and retrieval

Documentation Available

In program—student's instructions. **In supplementary materials**—suggested grade/ability level, instructional objectives, prerequisite skills or activities, sample program output, program operating instructions, teacher's information, resource/reference information, student's instructions, student worksheets.

Instructional Objectives (Stated)

To encourage the feeling of "Let's get involved in our community." To discover a local area—its geography, landforms, character, functions and potential. To look at the past, present and future, to discover who are the people in a specific "Hometown." To look at short and long term needs, and how interdependent local areas are.

Instructional Prerequisites (Stated)

Student will need to follow basic computer directions to store, search for data, sort and perform simple statistical calculations.

Content and Structure

This package contains one program disk, one data disk which may be copied, and a manual. The manual contains teacher notes, a step by step guide and reference manual, and reproducible student worksheets. Also

included are helpful data base codes and glossary. This package is designed to be used as a part of a specific demographic study to facilitate the collection, storage and analysis of necessary information. The computer is used as a tool to store information students collect in field surveys. The data disk stores information which is determined by the user. This data can then be searched and analyzed, and a statistical summary and other "reports" may be obtained. Some skills used in the package include recording information, interpreting results, researching, investigating, and map reading. Worksheets are divided in six units which involve surveying, questioning, entering data, and interpreting data.

Potential Uses

This package may be used by any size group of students entering data. This package could be used for a unit which utilizes data collection and analysis of polled data.

Estimated Student Time Required

This unit of study is designed for a whole class to cover a period of several weeks. Many activities must be completed before the computer program may be used.

Major Strengths

This package is extremely adaptable to many different teaching situations. This is a major project to undertake; however, the manual literally takes the teacher by the hand. Lesson plans are clearly presented and the worksheets are helpful. After basic data is entered, students can easily manipulate the data to draw conclusions about their "Hometown," be it a community or even a school. The data base for summarizing and analyzing data is easy to use and has effective error trapping.

Major Weakness

This package doesn't use graphics or sound. Graphics, especially pie or bar graphs to illustrate student findings, would be helpful.

Other Comments

The data base program is specifically designed for this unit of study. The package needs to be evaluated and chosen based on the off-computer activities as the computer portion (analyzing data collected in a survey) is a minor portion of the package.

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
•					Content has educational value.
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	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

The evaluators indicated that they would highly recommend this package.

Summary: Scale from 5 (High) to 1 (Low).
Content - 5, Instructional Characteristics - 5, Technical Characteristics - 4.

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